

CLAIMS

1. A running reserve indicator mechanism of a mechanical timepiece movement provided with a main barrel (23) for driving the finishing gear-train and at least a second barrel (31) for driving a gear-train assigned to an auxiliary function that must be performed during a determined period, characterized in that it comprises:
 - running reserve indicator means comprising a hand (18) and a dial (19) used for reading the position of the hand,
 - first and second gear-trains connecting respectively the main barrel and the second barrel to said indicator means,
 - said means and said gear-trains being arranged so that the indicated running reserve corresponds to the time remaining to perform said auxiliary function.
2. The mechanism as claimed in claim 1, characterized in that said indicator means and said gear-trains are arranged so that the indicated running reserve is that of the barrel having the shortest reserve.
3. The mechanism as claimed in claim 2, characterized in that said indicator means and said gear-trains are such that:
 - so long as the timepiece operates without the chronograph function, said hand (18) starts moving only after a running time corresponding to the difference between the running time of the main barrel (23) and that of the second barrel (31),
 - as soon as the chronograph function is engaged, the hand (18) starts moving and indicates the

running reserve of the barrel having the shortest reserve.

4. The mechanism as claimed in one of claims 2 and 3, characterized in that said indicator means and said gear-trains are such that:
 - so long as the rewinding of the timepiece has not reached a state corresponding to a running time equal to that of the second barrel (31), said dial (19) rotates but said hand (18) remains immobile,
 - as soon as the rewinding has reached said state, the dial (19) and the hand (18) rotate at the same time.
5. The mechanism as claimed in one of claims 1 to 4, characterized in that said indicator means also comprise:
 - a shaft (39) to which the indicator hand (18) is attached and the dial (19) is mounted pivotingly,
 - a first wheel (40) also attached to this shaft and furnished with a circular opening (41) whose length corresponds to a running time substantially equal to the running time of the second barrel (31),
 - a second wheel (37) mounted pivotingly on the shaft (39), fixedly attached to the dial (19) and furnished with a lug (38) situated in said opening (41),
 - a fourth wheel (42) friction-mounted on the shaft (39), and
 - a first gearwheel (46) attached to the shaft (39).
6. The mechanism as claimed in claim 5, characterized in that said first gear-train connects the tooth gear (26) of the main barrel (23) to said first gearwheel (46) and comprises:

- a fifth wheel (48) fixedly attached in rotation to said gearwheel (46) and provided with a circular opening (49) whose length corresponds to the difference between the running time of the main barrel (23) and that of the second barrel (31), and
 - a sixth wheel (50) fixedly attached in rotation to said tooth gear (26) mounted free in rotation on the shaft (51) of the fifth wheel (48) and furnished with a lug (52) situated in its opening (49).
7. The mechanism as claimed in claim 6, characterized in that said first gear-train also comprises, inserted between the sixth wheel (50) and the tooth gear (26) of the main barrel (23), a seventh wheel (55) friction-mounted and a dogtooth mobile (60).
8. The mechanism as claimed in one of claims 5 to 7, characterized in that said second gear-train comprises:
- a second gearwheel (34) attached to the shaft (30) of the second barrel (31),
 - a seventh wheel (35) engaging with this gearwheel (34) and whose gearwheel (36) engages with said second wheel (37),
 - a third gearwheel (45) mounted pivotingly on said shaft (30), and
 - an eighth wheel (44) engaging with this third gearwheel (45) and whose gearwheel (43) engages with said fourth wheel (42), said seventh wheel (35) being mounted pivotingly on the shaft of this gearwheel.